

Supplementary Material

Appendix A. Gastrointestinal Tests and Procedures

Procedure	Code Type	Code	Description
Gastrointestinal Scope			
Anoscopy	ICD-9 Procedure	49.21	anoscopy
	CPT	46600	anoscopy; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
	CPT	46604	anoscopy; with dilation (eg, balloon, guide wire, bougie)
	CPT	46606	anoscopy; with biopsy, single or multiple
	CPT	46608	anoscopy; with biopsy, single or multiple
	CPT	46610	anoscopy; with removal of single tumor, polyp, or other lesion by hot biopsy forceps or bipolar cautery
	CPT	46611	anoscopy; with removal of single tumor, polyp, or other lesion by snare technique
	CPT	46612	anoscopy; with removal of single tumor, polyp, or other lesion by snare technique
	CPT	46614	anoscopy; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	46615	anoscopy; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
Colonoscopy	ICD-9 Procedure	45.23	colonoscopy
	CPT	45378	colonoscopy, flexible, proximal to splenic flexure; diagnostic, with or without collection of specimen(s) by brushing or washing, with or without colon decompression (separate procedure)
	CPT	45379	colonoscopy, flexible, proximal to splenic flexure; with removal of foreign body
	CPT	45380	colonoscopy, flexible, proximal to splenic flexure; with biopsy, single or multiple
	CPT	45381	colonoscopy, flexible, proximal to splenic flexure; with directed submucosal injection(s), any substance
	CPT	45382	colonoscopy, flexible, proximal to splenic flexure; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	45383	colonoscopy, flexible, proximal to splenic flexure; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
	CPT	45384	colonoscopy, flexible, proximal to splenic flexure; with removal of tumor(s), polyp(s), or other lesion(s) by hot

			biopsy forceps or bipolar cautery
	CPT	45385	colonoscopy, flexible, proximal to splenic flexure; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique
	CPT	45386	colonoscopy, flexible, proximal to splenic flexure; with dilation by balloon, 1 or more strictures
	CPT	45387	colonoscopy, flexible, proximal to splenic flexure; with transendoscopic stent placement (includes predilation)
	CPT	45391	colonoscopy, flexible, proximal to splenic flexure; with endoscopic ultrasound examination
	CPT	45392	colonoscopy, flexible, proximal to splenic flexure; with transendoscopic ultrasound guided intramural or transmural fine needle aspiration/biopsy(s)
	HCPCS	G0105	colorectal cancer screening; colonoscopy on individual at high risk
	HCPCS	G0121	colorectal cancer screening; colonoscopy on individual not meeting criteria for high risk
	HCPCS	G0120	colorectal cancer screening; alternative to g0105, screening colonoscopy, barium enema.
Small Intestinal Endoscopy	ICD-9 Procedure	45.1X	diagnostic procedures on small intestine
	CPT	44360	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
	CPT	44361	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with biopsy, single or multiple
	CPT	44363	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of foreign body
	CPT	44364	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique
	CPT	44365	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery
	CPT	44366	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	44369	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
	CPT	44370	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with transendoscopic stent placement (includes predilation)
	CPT	44372	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with placement of percutaneous jejunostomy tube
	CPT	44373	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with conversion of percutaneous gastrostomy tube to percutaneous jejunostomy tube
	CPT	44376	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)

	CPT	44377	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with biopsy, single or multiple
	CPT	44378	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	44379	small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with transendoscopic stent placement (includes predilation)
	CPT	44385	endoscopic evaluation of small intestinal [abdominal or pelvic] pouch; diagnostic, with or without collection of specimen[s] by brushing or washing
	CPT	44386	endoscopic evaluation of small intestinal [abdominal or pelvic] pouch; with biopsy, single or multiple
Upper GI Endoscopy	ICD-9 Procedure	42.24	closed [endoscopic] biopsy of esophagus
	ICD-9 Procedure	42.33	endoscopic excision or destruction of lesion or tissue of esophagus
	ICD-9 Procedure	43.11	percutaneous endoscopic gastrostomy [PEG]
	ICD-9 Procedure	43.41	endoscopic excision or destruction of lesion or tissue of stomach
	ICD-9 Procedure	44.1X	diagnostic procedures on stomach
	ICD-9 Procedure	44.22	endoscopic dilation of pylorus
	CPT	44.43	endoscopic control of gastric or duodenal bleeding
	CPT	43234	upper gastrointestinal panendoscopy using a small-diameter endoscope
	CPT	43235	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
	CPT	43236	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with directed submucosal injection(s), any substance
	CPT	43237	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with endoscopic ultrasound examination limited to the esophagus
	CPT	43238	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with transendoscopic ultrasound-guided intramural or transmural fine needle aspiration/biopsy(s), esophagus (includes endoscopic ultraso
	CPT	43239	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with biopsy, single or multiple
	CPT	43240	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with transmural drainage of pseudocyst
	CPT	43241	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as

			appropriate; with transendoscopic intraluminal tube or catheter placement
	CPT	43242	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with transendoscopic ultrasound-guided intramural or transmural fine needle aspiration/biopsy(s) (includes endoscopic ultrasound examina)
	CPT	43243	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with injection sclerosis of esophageal and/or gastric varices
	CPT	43244	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with band ligation of esophageal and/or gastric varices
	CPT	43245	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with dilation of gastric outlet for obstruction (eg, balloon, guide wire, bougie)
	CPT	43246	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with directed placement of percutaneous gastrostomy tube
	CPT	43247	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with removal of foreign body
	CPT	43248	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with insertion of guide wire followed by dilation of esophagus over guide wire
	CPT	43249	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with balloon dilation of esophagus (less than 30 mm diameter)
	CPT	43250	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery
	CPT	43251	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique
	CPT	43255	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with control of bleeding, any method
	CPT	43256	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with transendoscopic stent placement (includes predilation)
	CPT	43258	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
	CPT	43259	upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
Lower GI Endoscopy	ICD-9 Procedure	45.24	flexible sigmoidoscopy
	ICD-9 Procedure	45.25	closed [endoscopic] biopsy of large intestine
	ICD-9 Procedure	45.28	other diagnostic procedures on large intestine

	ICD-9 Procedure	45.29	other diagnostic procedures on intestine, site unspecified
	ICD-9 Procedure	45.3X	local excision or destruction of lesion or tissue of small intestine
	ICD-9 Procedure	48.21	transabdominal proctosigmoidoscopy
	ICD-9 Procedure	48.23	rigid proctosigmoidoscopy
	ICD-9 Procedure	48.24	closed [endoscopic] biopsy of rectum
	ICD-9 Procedure	48.29	other diagnostic procedures on rectum, rectosigmoid and perirectal tissue
	ICD-9 Procedure	48.36	[endoscopic] polypectomy of rectum
	ICD-9 Procedure	49.31	endoscopic excision or destruction of lesion or tissue of anus
	ICD-9 Procedure	45.42	endoscopic polypectomy of large intestine
	ICD-9 Procedure	45.43	endoscopic destruction of other lesion or tissue of large intestine
	CPT	810	lower GI endoscopy
Proctosigmoidoscopy	CPT	45300	proctosigmoidoscopy, rigid; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
	CPT	45303	proctosigmoidoscopy, rigid; with dilation (eg, balloon, guide wire, bougie)
	CPT	45305	proctosigmoidoscopy, rigid; with biopsy, single or multiple
	CPT	45307	proctosigmoidoscopy, rigid; with removal of foreign body
	CPT	45308	proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by hot biopsy forceps or bipolar cautery
	CPT	45309	proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by snare technique
	CPT	45315	proctosigmoidoscopy, rigid; with removal of multiple tumors, polyps, or other lesions by hot biopsy forceps, bipolar cautery or snare technique
	CPT	45317	proctosigmoidoscopy, rigid; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	45320	proctosigmoidoscopy, rigid; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique (eg, laser)
	CPT	45321	proctosigmoidoscopy, rigid; with decompression of volvulus

Sigmoidoscopy	CPT	45330	sigmoidoscopy, flexible; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)
	CPT	45331	sigmoidoscopy, flexible; with biopsy, single or multiple
	CPT	45332	sigmoidoscopy, flexible; with removal of foreign body
	CPT	45333	sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery
	CPT	45334	sigmoidoscopy, flexible; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)
	CPT	45335	sigmoidoscopy, flexible; with directed submucosal injection(s), any substance
	CPT	45337	sigmoidoscopy, flexible; with decompression of volvulus, any method
	CPT	45338	sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique
	CPT	45339	sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique
	CPT	45340	sigmoidoscopy, flexible; with dilation by balloon, 1 or more strictures
	CPT	45341	sigmoidoscopy, flexible; with endoscopic ultrasound examination
	CPT	45342	sigmoidoscopy, flexible; with transendoscopic ultrasound guided intramural or transmural fine needle aspiration/biopsy(s)
	CPT	45345	sigmoidoscopy, flexible; with transendoscopic stent placement (includes predilation)
Gastrointestinal Biopsy			
Biopsy	CPT	45100	biopsy of anorectal wall, anal approach (eg, congenital megacolon)
	ICD-9 Procedure	49.22	biopsy of perianal tissue
	ICD-9 Procedure	49.23	biopsy of anus
	ICD-9 Procedure	49.29	other diagnostic procedures on anus and perianal tissue
	ICD-9 Procedure	45.26	open biopsy of large intestine
	ICD-9 Procedure	45.27	intestinal biopsy, site unspecified
	ICD-9 Procedure	48.25	open biopsy of rectum
	ICD-9 Procedure	48.26	biopsy of perirectal tissue
	ICD-9	54.22	biopsy of abdominal wall or umbilicus

	Procedure		
	ICD-9 Procedure	54.24	closed [percutaneous] [needle] biopsy of intra-abdominal mass
	ICD-9 Procedure	54.29	other diagnostic procedures on abdominal region
Gastrointestinal Transit Testing			
Gastric Emptying Studying	CPT	78264	gastric emptying study
Sitzmark Test	CPT	99070	supplies and materials (except spectacles), provided by the physician or other qualified health care professional over and above those usually included with the office visit or other services rendered (list drugs, trays, supplies, or materials provided)
SmartPill	CPT	0242T	gastrointestinal tract transit and pressure measurement, stomach through colon, wireless capsule, with interpretation and report
	CPT	91112	gastrointestinal transit and pressure measurement, stomach through colon, wireless capsule, with interpretation and report
Anorectal Dysfunction Testing			
Anorectal Manometry	CPT	91120	rectal sensation, tone, and compliance test (ie, response to graded balloon distention)
	CPT	91122	anorectal manometry
	CPT	90911	biofeedback training, perineal muscles, anorectal or urethral sphincter, including emg and/or manometry
Barium Enema	ICD-9 Procedure	87.64	lower GI series
	CPT	74270	radiologic examination, colon; contrast (eg, barium) enema, with or without kub
	CPT	74280	radiologic examination, colon; air contrast with specific high density barium, with or without glucagon
	HCPCS	G0106	colorectal cancer screening; alternative to g0104, screening sigmoidoscopy, barium enema
	HCPCS	G0120	colorectal cancer screening; alternative to g0105, screening colonoscopy, barium enema.
	HCPCS	G0122	colorectal cancer screening; barium enema
Biofeedback	ICD-9 Procedure	94.39	other individual psychotherapy - Biofeedback
	CPT	90901	biofeedback training by any modality
	CPT	90911	biofeedback training, perineal muscles, anorectal or urethral sphincter, including emg and/or manometry
	CPT	90875	individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); 30 minutes
	HCPCS	E0746	electromyography (emg), biofeedback device

Radiologic Imaging			
Computed tomography, abdominal, colon, and pelvic	ICD-9 Procedure	88.01	computerized axial tomography of abdomen
	ICD-9 Procedure	88.02	other abdomen tomography
	CPT	71260	computed tomography, thorax; with contrast material(s)
	CPT	71275	computed tomographic angiography, chest (noncoronary), with contrast material(s), including noncontrast images, if performed, and image postprocessing
	CPT	74150	computed tomography, abdomen; without contrast material
	CPT	74160	computed tomography, abdomen; with contrast material(s)
	CPT	74170	computed tomography, abdomen; without contrast material, followed by contrast material(s) and further sections
	CPT	74174	computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing
	CPT	74175	computed tomographic angiography, abdomen, with contrast material(s), including noncontrast images, if performed, and image postprocessing
	CPT	74176	computed tomography, abdomen and pelvis; without contrast material
	CPT	74177	computed tomography, abdomen and pelvis; with contrast material(s)
	CPT	74178	computed tomography, abdomen and pelvis; without contrast material in 1 or both body regions, followed by contrast material(s) and further sections in 1 or both body regions
	CPT	72191	computed tomographic angiography, pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing
	CPT	72192	computed tomography, pelvis; without contrast material
	CPT	72193	computed tomography, pelvis; with contrast material(s)
	CPT	72194	computed tomography, pelvis; without contrast material, followed by contrast material(s) and further sections
	CPT	73677	computed tomography chest, Abdominal, and pelvic W/O contrast with 3D
	CPT	74261	computed tomographic (CT) colonography, diagnostic, including image postprocessing; without contrast material
	CPT	74262	computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed
	CPT	74263	computed tomographic (CT) colonography, screening, including image postprocessing
	CPT	74178	computed tomography, abdomen and pelvis; without contrast material in 1 or both body regions, followed by contrast material(s) and further sections in 1 or both body regions
	CPT	76377	3d rendering with interpretation and reporting of computed tomography, magnetic resonance imaging, ultrasound, or other tomographic modality with image postprocessing under concurrent supervision; requiring image postprocessing on an independent workstat

	CPT	75635	computed tomographic angiography, abdominal aorta and bilateral iliofemoral lower extremity runoff, with contrast material(s), including noncontrast images, if performed, and image postprocessing
	CPT	77078	computed tomography, bone mineral density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine)
Abdominal or Pelvic MRI	ICD-9 Procedure	88.95	magnetic resonance imaging of pelvis, prostate, and bladder
	ICD-9 Procedure	88.97	magnetic resonance imaging of other and unspecified sites
	CPT	72195	magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)
	CPT	72196	magnetic resonance (eg, proton) imaging, pelvis; with contrast material(s)
	CPT	72197	magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences
	CPT	72198	magnetic resonance angiography, pelvis, with or without contrast material(s)
	CPT	74181	magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s)
	CPT	74182	magnetic resonance (eg, proton) imaging, abdomen; with contrast material(s)
	CPT	74183	magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s), followed by with contrast material(s) and further sequences
	CPT	74184	MRA includes the major arterial and/or venous structures in the abdomen, from the diaphragmatic dome through the iliac crests.
	CPT	74185	MRA Abdomen W/GAD
	HCPCS	S8042	magnetic resonance imaging (mri), low-field
Abdominal and Pelvic Radiology	ICD-9 Procedure	88.1X	other x-ray of abdomen
	ICD-9 Procedure	88.09	other soft tissue x-ray of abdominal wall
	ICD-9 Procedure	88.26	other skeletal x-ray of pelvis and hip
	CPT	74000	radiologic examination, abdomen; single anteroposterior view
	CPT	74010	radiologic examination, abdomen; anteroposterior and additional oblique and cone views
	CPT	74020	radiologic examination, abdomen; complete, including decubitus and/or erect views
	CPT	74022	radiologic examination, abdomen; complete acute abdomen series, including supine, erect, and/or decubitus views, single view chest
	CPT	72170	radiologic examination, pelvis; 1 or 2 views
	CPT	72190	radiologic examination, pelvis; complete, minimum of 3 views
	CPT	74270	radiologic examination, colon; contrast (eg, barium) enema, with or without kub

	CPT	74280	radiologic examination, colon; air contrast with specific high density barium, with or without glucagon
	CPT	73540	radiologic examination, pelvis and hips, infant or child, minimum of 2 views
Upper GI Radiology	ICD-9 Procedure	87.61	barium swallow
	ICD-9 Procedure	87.62	upper gi series
	CPT	74220	radiologic examination; esophagus
	CPT	74240	radiologic examination, gastrointestinal tract, upper; with or without delayed films, without kub
	CPT	74241	radiologic examination, gastrointestinal tract, upper; with or without delayed films, with kub
	CPT	74245	radiologic examination, gastrointestinal tract, upper; with small intestine, includes multiple serial films
	CPT	74246	radiological examination, gastrointestinal tract, upper, air contrast, with specific high density barium, effervescent agent, with or without glucagon; with or without delayed films, without kub
	CPT	74247	radiological examination, gastrointestinal tract, upper, air contrast, with specific high density barium, effervescent agent, with or without glucagon; with or without delayed films, with kub
	CPT	74249	radiological examination, gastrointestinal tract, upper, air contrast, with specific high density barium, effervescent agent, with or without glucagon; with small intestine follow-through
Lower GI Radiology	ICD-9 Procedure	87.63	small bowel series
	ICD-9 Procedure	87.64	lower GI series
	ICD-9 Procedure	87.65	other x-ray of intestine
	ICD-9 Procedure	87.69	other digestive tract x-ray
	CPT	74250	radiologic examination, small intestine, includes multiple serial films;
	CPT	74251	radiologic examination, small intestine, includes multiple serial films; via enteroclysis tube
	CPT	74260	duodenography, hypotonic
	CPT	74270	radiologic examination, colon; contrast (eg, barium) enema, with or without kub
	CPT	74280	radiologic examination, colon; air contrast with specific high density barium, with or without glucagon
	CPT	74283	therapeutic enema, contrast or air, for reduction of intussusception or other intraluminal obstruction (eg, meconium ileus)
Abdominal and Pelvic Ultrasound (Non-Therapeutic)	ICD-9 Procedure	88.74	diagnostic ultrasound of digestive system
	ICD-9 Procedure	88.76	diagnostic ultrasound of abdomen and retroperitoneum

	CPT	76975	gastrointestinal endoscopic ultrasound, supervision and interpretation
	CPT	76700	ultrasound, abdominal, real time with image documentation; complete
	CPT	76705	ultrasound, abdominal, real time with image documentation; limited (eg, single organ, quadrant, follow-up)
	CPT	76770	ultrasound, retroperitoneal (e.g., renal, aorta, nodes), real time with image documentation; complete
	CPT	76775	ultrasound, retroperitoneal (e.g., renal, aorta, nodes), real time with image documentation; limited
	CPT	93975	duplex scan of arterial inflow and venous outflow of abdominal, pelvic, scrotal contents and/or retroperitoneal organs; complete study
	CPT	76856	ultrasound, pelvic (nonobstetric), real time with image documentation; complete
	CPT	76857	ultrasound, pelvic (nonobstetric), real time with image documentation; LDT
	HCPCS	G0389	ultrasound b-scan and/or real time with image documentation; for abdominal aortic aneurysm (aaa) screening
Defogram	CPT	74270	radiologic examination, colon; contrast (eg, barium) enema, with or without kub
Others Radiologic Imaging	CPT	74340	introduction of long gastrointestinal tube (eg, miller-abbott), including multiple fluoroscopies and films, radiological supervision and interpretation
	CPT	74350	percutaneous placement of gastrointestinal tube, radiological supervision and interpretation
	CPT	74355	percutaneous placement of enteroclysis tube, radiological supervision and interpretation
	CPT	74360	intraluminal dilation of strictures and/or obstructions (eg, esophagus), radiological supervision and interpretation
Fecal Disimpaction			
Pulse Irrigation	CPT	91123	Pulsed irrigation of fecal impaction
	HCPCS	E0350	control unit for electronic bowel irrigation/evacuation system
	HCPCS	E0352	disposable pack (water reservoir bag, speculum, valving mechanism and collection bag/box) for use with the electronic bowel irrigation/evacuation system
Fecal Disimpaction	ICD-9 Procedure	96.38	removal of impacted feces
	CPT	91123	Pulsed irrigation of fecal impaction
Gastrointestinal Surgery, Anorectal			
Hemorrhoidectomy	ICD-9 Procedure	49.1X	incision or excision of anal fistula
	ICD-9 Procedure	49.39	other local excision or destruction of lesion or tissue of anus
	ICD-9 Procedure	49.4X	procedures on hemorrhoids
	ICD-9	49.5X	division of anal sphincter

	Procedure		
	ICD-9 Procedure	49.6X	excision of anus
	ICD-9 Procedure	49.9X	other operation on anus
	CPT	45990	anorectal exam, surgical, requiring anesthesia (general, spinal, or epidural), diagnostic
	CPT	45999	unlisted procedure, rectum
	CPT	46083	incision of thrombosed hemorrhoid, external
	CPT	46220	excision of single external papilla or tag, anus
	CPT	46221	hemorrhoidectomy, internal, by rubber band ligation(s)
	CPT	46230	excision of multiple external papillae or tags, anus
	CPT	46250	hemorrhoidectomy, external, 2 or more columns/groups
	CPT	46255	hemorrhoidectomy, internal and external, single column/group;
	CPT	46257	hemorrhoidectomy, internal and external, single column/group; with fissurectomy
	CPT	46258	hemorrhoidectomy, internal and external, single column/group; with fistulectomy, including fissurectomy, when performed
	CPT	46260	hemorrhoidectomy, internal and external, 2 or more columns/groups;
	CPT	46261	hemorrhoidectomy, internal and external, 2 or more columns/groups; with fissurectomy
	CPT	46262	hemorrhoidectomy, internal and external, 2 or more columns/groups; with fistulectomy, including fissurectomy, when performed
	CPT	46320	excision of thrombosed hemorrhoid, external
	CPT	46500	injection of sclerosing solution, hemorrhoids
	CPT	46700	anoplasty, plastic operation for stricture; adult
	CPT	46934	destruction of hemorrhoids any method; intern
	CPT	46935	destruction of hemorrhoids any method; extern
	CPT	46936	destruction of hemorrhoids any method; intern and extern
	CPT	46945	hemorrhoidectomy, internal, by ligation other than rubber band; single hemorrhoid column/group
	CPT	46946	hemorrhoidectomy, internal, by ligation other than rubber band; 2 or more hemorrhoid columns/groups
	CPT	46947	hemorrhoidopexy, stapled, includes PPH
	CPT	46999	unlisted procedure, anus
Fissurectomy	ICD-9	49.0X	incision or excision of perianal tissue

	Procedure		
	ICD-9 Procedure	49.3X	local excision or destruction of other lesion or tissue of anus
	ICD-9 Procedure	49.7X	repair of anus
	CPT	46200	fissurectomy, including sphincterotomy, when performed
Fistulotomy	ICD-9 Procedure	49.11	anal fistulotomy
	CPT	46270	surgical treatment of anal fistula (fistulectomy/fistulotomy); subcutaneous
	CPT	46275	surgical treatment of anal fistula (fistulectomy/fistulotomy); intersphincteric
	CPT	46280	surgical treatment of anal fistula (fistulectomy/fistulotomy); transsphincteric, suprasphincteric, extrasphincteric or multiple, including placement of seton, when performed
	CPT	46285	surgical treatment of anal fistula (fistulectomy/ fistulotomy)
	CPT	46288	closure of anal fistula with rectal advancement flap
Others Gastrointestinal Surgery, Anorectal	ICD-9 Procedure	48.0X	Proctotomy
	ICD-9 Procedure	48.1X	Proctostomy
	CPT	45108	anorectal myomectomy
	CPT	45500	proctoplasty; for stenosis
	CPT	45505	proctoplasty; for prolapse of mucous membrane
	CPT	45520	perirectal injection of sclerosing solution for prolapse
	CPT	45540	proctopexy (eg, for prolapse); abdominal approach
	CPT	45541	proctopexy (eg, for prolapse); perineal approach
	CPT	45550	proctopexy (eg, for prolapse); with sigmoid resection, abdominal approach
	CPT	45560	repair of rectocele (separate procedure)
	CPT	45900	reduction of procidentia (separate procedure) under anesthesia
	CPT	45905	dilation of anal sphincter (separate procedure) under anesthesia other than local
	CPT	45910	dilation of rectal stricture (separate procedure) under anesthesia other than local
	CPT	45915	removal of fecal impaction or foreign body (separate procedure) under anesthesia
	CPT	46020	placement of seton
	CPT	46030	removal of anal seton, other marker

	CPT	46750	sphincteroplasty, anal, for incontinence or prolapse; adult
	CPT	46753	graft (thiersch operation) for rectal incontinence and/or prolapse
	CPT	46754	removal of thiersch wire or suture, anal canal
	CPT	46930	destruction of internal hemorrhoid(s) by thermal energy (eg, infrared coagulation, cautery, radiofrequency)
	CPT	46940	curettage or cautery of anal fissure, including dilation of anal sphincter (separate procedure); initial
	CPT	46942	curettage or cautery of anal fissure, including dilation of anal sphincter (separate procedure); subsequent

CPT, Common Procedural Terminology; HCPCS, Healthcare Common Procedural Coding System; ICD-9, International Classification of Diseases, Ninth Revision.

Appendix B. IBS-Related Comorbidities

IBS-Related Comorbidities	ICD-9 Code
Anxiety	293.84, 300.0x, 309.21, 312.23
Depressive Disorders	296.2x, 296.3x, 296.99, 300.4x, 311.xx, 625.4x
Somatization	300.8x
Migraines	346.xx
Interstitial Cystitis	595.1x
Fibromyalgia	729.1x
Chronic Fatigue	780.71
Dyspareunia	625.0x
Dyspepsia	536.8x
GERD	530.81
Constipation	564.0x

GERD, gastroesophageal reflux disease; ICD-9, International Classification of Diseases, Ninth Revision; IBS, irritable bowel syndrome.